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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,724	01/20/2004	Chia-Ming Hsieh	B-5357 621656-0	3677

36716 7590 02/04/2005

LADAS & PARRY
5670 WILSHIRE BOULEVARD, SUITE 2100
LOS ANGELES, CA 90036-5679

EXAMINER

LEVI, DAMEON E

ART UNIT	PAPER NUMBER
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2841

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,724

Applicant(s)

HSIEH, CHIA-MING

Examiner

Dameon E Levi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 4-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8,9 are rejected under 35 U.S.C. 102(b) as being anticipated by Swirbel et al US Patent 5355016.

Regarding claim 1, Swirbel et al discloses a package comprising:

a chip including a substrate with a bottom surface (for example, see elements 10,16

Figs 1,2);

a plurality of solder bumps projecting outwardly from said bottom surface of said

substrate; (for example, see elements 20,10, Figs 1,2);

and an electromagnetic shield including a housing(for example, see elements 19, 15

Figs 1,2); that defines an inner space which receives said chip and said solder bumps

therein, and a bottom opening for access into said inner space; wherein said solder

bumps project outwardly of said inner space through said bottom opening in said

housing (for example, see Figs 1,2).

Regarding claim 2, Swirbel et al discloses wherein said housing of said

electromagnetic shield is connected directly to said substrate of said chip(for example,

see elements 19, 15, 10 Figs 1,2).

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Regarding claim 3, Swirbel et al discloses wherein said housing of said electromagnetic shield has a peripheral wall that surrounds said chip and said solder bumps(for example, see elements 19, 15, 10 Figs 1,2).

Regarding claim 8, Swirbel et al discloses a device comprising:

a printed circuit board;(for example, see element 14, Figs 1,2)

a chip including a substrate with opposite top and bottom surfaces , and a semiconductor die mounted on said top surface said substrate(for example, see elements 10,16 Figs 1,2);

a plurality of solder bumps projecting outwardly from said bottom surface of said substrate and connected directly and electrically to said printed circuit board(for example, see elements 20,10, Figs 1,2); and

an electromagnetic shield including a housing (for example, see elements 19, 15 Figs 1,2)that defines an inner space which receives said chip and said solder bumps therein, and a bottom opening for access into said inner space, said housing having a bottom end that defines said bottom opening and that connected directly said printed circuit board; wherein said solder bumps project outwardly of said inner space through said bottom opening in said housing(for example, see Figs 1,2).

Regarding claim 9, Swirbel et al discloses wherein said housing of said electromagnetic shield is connected directly to said substrate of said chip(for example, see elements 19, 15, 10 Figs 1,2).

Allowable Subject Matter

Claims 4-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

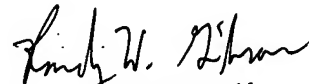
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dameon E Levi whose telephone number is (571) 272-2105. The examiner can normally be reached on Mon.-Fri. (9:00 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dameon E. Levi
Examiner
Art Unit 2841

DEL


RANDY W. GIBSON
PRIMARY EXAMINER